

METHOD OF DEPOSITING THIN FILMS FOR MAGNETIC HEADS

Abstract of the Disclosure

[0058] A structure and method of fabricating a magnetic read head, comprises forming a fill layer for a magnetic read head gap using atomic layer deposition (ALD). The fill layer comprises an insulator, preferably aluminum oxide, aluminum nitride, mixtures thereof and layered structures thereof. Materials having higher thermal conductivity than aluminum oxide, such as beryllium oxide and boron nitride, can also be employed in layers within an aluminum oxide structure. The thickness of the ALD-formed head gap fill layer is between approximately 5 nm and 100 nm, preferably between approximately 10 nm and 40 nm.

W:\DOCS\ANMANM-6581.DOC
021704